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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PATTERSON, MARC A

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 03/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/932,523

Applicant(s)

KONG, DAN-CHENG

Examiner

Marc A Patterson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 August 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1 – 15, drawn to a thermoplastic film / sleeve, classified in class 428, subclass 34.9.
  - II. Claims 16 – 22, drawn to a process for producing a sleeve, classified in class 264, subclass 230.
2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by a materially different process, such as laminating existing layers rather than coextrusion.
3. During a telephone conversation with Mr. Rick James on November 23, 2002, a provisional election was made with traverse to prosecute the invention of I, claims 1 – 15. Affirmation of this election must be made by applicant in replying to this Office action. Claims 16 – 22 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term 'core' is indefinite, as its meaning is unclear. For purposes of examination, the term will be assumed to refer to any layer. The phrase 'the interior of the film' is indefinite as its meaning is unclear. For purposes of examination, the phrase will be assumed to mean any part of the film. The use of the term 'a.' is indefinite as its meaning is unclear; no 'b.' exists in Claim 2.

6. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The use of the term 'b.' is indefinite as its meaning is unclear; no 'a.' exists in Claim 2.

7. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The use of the term 'c.' is indefinite as its meaning is unclear; no 'a.' exists in Claim 3.

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8. Claims 8 – 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase ‘cavitating agent’ is indefinite as its meaning is unclear. For purposes of examination, the phrase will be assumed to mean any filler.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1 – 5, 10 – 11 and 13 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokushige et al (U.S. Patent No. 5,866,634).

With regard to Claim 1, Tokushige et al disclose a thermoplastic film (biodegradable shrink film; column 1, lines 5 – 12) comprising 60% by weight of a polylactic acid (column 2, lines 51 – 63) comprising D-lactic acid (column 1, lines 58 – 65) and a toughening additive (a thermal stabilizer which improves impact strength; column 4, lines 23 – 33). Tokushige et al fail to disclose a D-lactic acid level of 1 mol% to 8 mol%. However, Tokushige et al disclose a D-lactic acid level of at least a fraction of 1% (the film comprises D-lactic acid; column 1, lines 58 – 65). Therefore, the D-lactic acid level would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary the D-lactic acid level, since the D-lactic acid level would be readily determined through routine optimization by

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one having ordinary skill in the art depending on the desired end result as shown by Tokushige et al. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

With regard to Claims 2 – 3, 5 and 10 – 11, Tokushige et al fail to disclose a film comprising two layers of the thermoplastic film and a film comprising three layers of the thermoplastic film and a film comprising 1 – 10% by weight polycaprolactone and a film having a thickness of 5 mils. However, Tokushige et al disclose a film comprising one layer of the thermoplastic film, as discussed above, and a film comprising 20% by weight polycaprolactone (column 3, lines 4 – 12) and a film having a thickness of 40 mils (1 millimeter; column 5, lines 3 – 5). Therefore, the number of layers, amount of polycaprolactone and thickness would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary the number of layers, amount of polycaprolactone and thickness since the number of layers, amount of polycaprolactone and thickness would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Tokushige et al. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

With regard to Claim 4, the each layer of the film comprises a slip additive (lubricant; column 3, lines 11).

With regard to Claims 13 – 15, the shrink film is a label for application to bottles (therefore a sleeve label; column 4, lines 41 – 54). The claimed aspect of the film being applied to a container with ‘an adhesive adjacent to the surface’ therefore reads on Tokushige et al.

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11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tokushige et al (U.S. Patent No. 5,866,634) in view of Suzuki et al (U.S. Patent No. 5,691,424).

Tokushige et al disclose a lactic acid polymer film comprising polycaprolactone as discussed above. Tokushige et al fail to disclose a film comprising polycaprolactone as a toughening agent.

Suzuki et al teach the use of polycaprolactone as a toughening agent (column 5, lines 50 – 51) in a lactic – acid polymer (column 5, lines 35 – 41) for the purpose of obtaining excellent molded articles (column 5, lines 35 – 41). The desirability of providing for polycaprolactone as a toughening agent in Tokushige et al, which is a lactic – acid polymer, would therefore have been obvious to one of ordinary skill in the art.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for polycaprolactone as a toughening agent in Tokushige et al in order to obtain excellent molded articles as taught by Suzuki et al.

12. Claims 7 – 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokushige et al (U.S. Patent No. 5,866,634) in view of Ikado et al (U.S. Patent No. 5,766,748).

Tokushige et al disclose a lactic – acid polymer film as discussed above. With regard to Claims 7 – 8 and 12, Tokushige et al fail to disclose a film which is cavitated and which comprises calcium carbonate, and a film which is biaxially oriented.

Ikado et al teach a film which comprises calcium carbonate as a filler (the film therefore comprises cavities, containing the calcium carbonate; column 3, lines 58 – 61) and is biaxially oriented (column 3, lines 65 – 66) for the purpose of obtaining a film having an improved level

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of durability (column 1, lines 60 – 65). The desirability of providing for cavitation and calcium carbonate and biaxial orientation in Tokushige et al, which is a lactic acid film, would therefore have been obvious to one of ordinary skill in the art.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for cavitation and calcium carbonate and biaxial orientation in Tokushige et al in order to obtain a film having an improved level of durability as taught by Ikado et al.

13. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tokushige et al (U.S. Patent No. 5,866,634) in view of Ikado et al (U.S. Patent No. 5,766,748) and further in view of Lee et al (U.S. Patent No. 5,861,461).

Tokushige et al and Ikado et al disclose a lactic – acid polymer film as discussed above. Tokushige et al and Ikado et al fail to disclose a film which comprises high density polyethylene.

Lee et al disclose the blending of polylactic acid and high density polyethylene (column 3, lines 47 – 67; column 4, lines 1 – 9) for the purpose of obtaining a film having good processability and physical properties (column 2, lines 30 – 45). The desirability of providing for the blending of polylactic acid and high density polyethylene in Tokushige et al and Ikado et al, which is a lactic acid polymer film, would therefore have been obvious to one of ordinary skill in the art.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for the blending of polylactic acid and high

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density polyethylene in Tokushige et al and Ikado et al in order to obtain a film having good processability and physical properties as taught by Lee et al.

*Conclusion*

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Patterson, whose telephone number is (703) 305-3537. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (703) 308-4251. FAX communications should be sent to (703) 872-9310. FAXs received after 4 P.M. will not be processed until the following business day.

Marc A. Patterson, PhD.

*Marc Patterson*  
Art Unit 1772

*Harold Pyon*  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
*1772* *3/3/03*